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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|------------------------|---------------------|------------------|
| 09/844,398 | 04/27/2001 | Chakkalamattam J. Paul | AUS92000858US1 | 1317 |

7590 07/29/2004

Joseph R. Burwell
Law Office of Joseph R. Burwell
P.O. Box 28022
Austin, TX 78755-8022

EXAMINER

OSMAN, RAMY M

| ART UNIT | PAPER NUMBER |
|----------|--------------|
|----------|--------------|

2157

DATE MAILED: 07/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/844,398

Applicant(s)

PAUL ET AL.

Examiner

Ramy M Osman

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-51 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-51 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 September 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

1. Examiner acknowledges preliminary amendment filed on 9/18/2002.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1 and 3-7 rejected under 35 U.S.C. 102(e) as being anticipated by Aguilar et al (US Patent No 6,490,677).
4. In reference to claims 1,3 and 6, Aguilar teaches receiving at the server device a boot request from the client device, wherein the client device requires boot files uniquely configured for the client device; in response to receiving the boot request, generating a boot response to the client device that directs the client device to download boot files from the server device; and sending a boot response to the client device, wherein the boot response directs the client device to download boot files from the server device, wherein the server device is one of a plurality of boot servers on the network, and wherein the server device is able to respond to a boot request

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from all client devices on the network (Summary, column 4 lines 35-67 and column 5 lines 15-45).

5. In reference to claims 4,5 and 7, Aguilar teaches executing a proxy DHCP (Dynamic Host Configuration Protocol) service on the server device for processing a boot request, wherein a boot request is formatted as a PxE-extended (Preboot Execution Environment extended) DHCP Request message, and wherein the boot response is a PxE-extended DHCP Ack message; and executing a boot service on the server device for processing a PxE-extended Boot Service Discover message from a client (Summary, column 4 lines 35-67 and column 5 lines 15-45).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 2 and 9-14 rejected under 35 U.S.C. 103(a) as being unpatentable over Aguilar et al (US Patent No 6,490,677) in view of Yoshida et al (US Patent No 6,401,121).

8. In reference to claims 2 and 9-11, Aguilar teaches claim 6 above including receiving a response from an available boot server among a plurality of boot servers (abstract and figure 3) and PxE extended DHCP Ack messages (column 4 lines 35-67 and column 5 lines 15-45).

Aguilar does not explicitly teach prior to sending a boot response to the client device, determining that the server device has sufficient resources to service a remote boot process for an

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additional client device. However, Yoshida teaches prior to sending a server response to a client device, determining that the server device has sufficient resources to service a request for an additional client device (Abstract and Summary).

It would have been obvious for one of ordinary skill in the art to modify Aguilar by defining an available boot server as a server with sufficient resources as per the teachings of Yoshida so server loads can be distributed and a request rerouted if there is any faulty server (i.e. exceeded load capacity).

9. In reference to claims 12-14, Aguilar teaches claim 11 above. Aguilar fails to explicitly teach computing the availability of the server device to adequately service an additional remote boot process based upon resources within the server device. However, Yoshida teaches calculating load counts and availability of servers to service additional requests (Abstract, column 5 lines 1-40, column 8 lines 20-45 and column 10 line 32 – column 11 line 60).

It would have been obvious for one of ordinary skill in the art to modify Aguilar by calculating the availability of a server device to adequately service another request (in this case a boot process taught by Aguilar) as per the teachings of Yoshida so server loads can be distributed and a request rerouted if there is any faulty server (i.e. exceeded load capacity).

10. In reference to claims 15-17, Aguilar teaches claim 10 above. Aguilar fails to explicitly teach stopping service on the server device if the server device has insufficient resources for servicing an additional remote boot process; restarting a service on the server device if the server device has sufficient resources for servicing an additional remote boot process; communicating an execution status of the service on the server device to at least one other boot server in the plurality of boot servers on the network. However, Yoshida teaches not responding if insufficient

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resources, responding if sufficient resources, and server status (Summary, column 5 lines 1-40, column 8 lines 20-45 and column 10 line 32 – column 11 line 60).

It would have been obvious for one of ordinary skill in the art to modify Aguilar by defining an available boot server as a server with sufficient resources as per the teachings of Yoshida so server loads can be distributed and a request rerouted if there is any faulty server (i.e. exceeded load capacity).

11. Claim 8 rejected under 35 U.S.C. 103(a) as being unpatentable over Aguilar et al (US Patent No 6,490,677) in view of Anand et al (US Patent No 6,684,327).

Aguilar teaches claim 7 above. Aguilar fails to explicitly teach receiving at the server device an NBP (Network Bootstrap Program) Download Request message from the client device; processing the received NBP Download Request message within a TFTP (Trivial File Transfer Protocol) service on the server device; and downloading from the server device an NBP file to the client device. However, Anand teaches an NBP (Network Bootstrap Program) Download Request message from a client device; processing the received NBP Download Request message within a TFTP (Trivial File Transfer Protocol) service on a server device; and downloading from the server device an NBP, as well known in network booting utilizing DHCP/PxE (Abstract and column 1 line 5 – column 2 line 20).

It would have been obvious for one of ordinary skill in the art to modify Aguilar by including the well known elements of DHCP/PxE remote booting which include NBP and TFTP as per the teachings of Anand since these are the well known requisites of DHCP/PxE remote booting.

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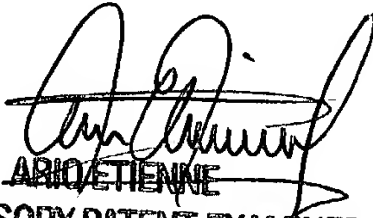
12. Claims 18-51 do not teach or define any new limitations above claims 1-17 as mentioned above and are therefore rejected for similar reasons.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ramy M Osman whose telephone number is (703) 305-8050. The examiner can normally be reached on M-F 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ario Etienne can be reached on (703) 308-7562. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

RMO
July 23, 2004


ARIO ETIENNE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100